

Remarks

Claims 1-4, 8-11, 14, and 16-21 are pending and presented for the Examiner's review and consideration. Applicants believe the accompanying remarks herein serve to clarify the present invention and are independent of patentability. No new matter has been added.

35 U.S.C. §103 Rejection

Claims 1-4, 16, and 18-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over JP 11124606 A2 in view of JP 411067588 and U.S. Patent No. 6,316,100 to Kodas *et al.* ("Kodas"). In particular, the Examiner cites JP 411067588 as disclosing a powder for an internal electrode of a laminated capacitor. Applicants submit, however, that JP 411067588 is cited incorrectly. Indeed, Claim 1 of the present application claims a base metal alloy powder comprising at least about 58% by weight Ni, about 0.2% to 30% by weight Cu, and about 6% to 40% by weight Cr, wherein the powder comprises particles which are substantially spherical and comprise an average particle size from about 25nm to about 700nm. JP 411067588 on the other hand discloses a conductive paste which is formed of an admixture of Cu, Ni, Cu-Ni as a main component and P, Cr, Fe, Al, Si, Co, W, Mn, Sn, Mo and B as auxiliary components. The admixture "... is printed on a dielectric sheet by a screen printing method and dried..." (paragraph [0016]). The sheet onto which the paste has been printed is "...baked in a reducing atmosphere, so that the internal electrode along with the dielectric is sintered. At that time, *the auxiliary components of the electroconductive material form a solid solution with the main component and are alloyed...*" (also paragraph [0016]). It is apparent, therefore, that the powder as disclosed in JP 411067588 is in admixture (and not alloyed) and that the powder admixture is subsequently converted into a solid alloy directly from the admixture. As a result, it is respectfully submitted that JP 411067588 does not disclose a Cu-Ni-Cr alloy powder, and therefore it is respectfully submitted that a person of skill in the art would have no reason to combine the teachings of JP 411067588 with those of JP 11124606 in order to arrive at the powder as claimed in Claim 1 of the present application.

Additionally, as pointed out in the background of the invention beginning at page 1, line 28, one drawback with the prior art which is specifically addressed by the present invention is that during the decomposition step where the organic binder of the pastes is decomposed, there is the potential that the internal electrode material will oxidize which will later be deoxidized during sintering. As clearly pointed out in the specification, de-oxidation during sintering leads to shrinkage causing cracking and de-lamination and increased rejections during the manufacturing process. By increasing the temperature of oxidation onset, oxidation during the decomposition step can be reduced with a corresponding decrease in de-oxidation which will occur at subsequent sintering. In order to benefit from this advantage, however, it is apparent that the Ni-Cu powder must be alloyed with the Cr prior to the decomposition step. As clearly pointed out in JP 411067588, however, the Cu-Ni powder and Cr powders are first mixed and only form an alloy during the sintering step, that is after the decomposition step. As a result, the capacitors fabricated according to JP 411067588 would still suffer the drawbacks of the prior art, that is the lower onset of oxidation than would otherwise be the result if the powder as claimed in Claim 1 of the present invention were used.

In light of the above, it is respectfully submitted that Claim 1 is an allowable claim. As all other rejected claims depend from an allowable claim it is submitted that they, too, are allowable claims at least for the same reasons.

Reinstatement of Withdrawn Claims

Applicants respectfully request reinstatement of withdrawn claims 8-11, 16, and 17. These claims depend from independent claim 1 which was indicated as being generic.

Conclusion

In light of the foregoing remarks, this application is now in condition for allowance and early passage of this case to issue is respectfully requested. If any questions remain regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

No fee is believed to be due. However, please charge any required fee (or credit any

overpayments of fees) to the Deposit Account of the undersigned, Account No. 500601 (Docket No. 7012-X04-002).

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul Bianco", with a large, sweeping flourish at the end.

Paul Bianco, Reg. # 43,500

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